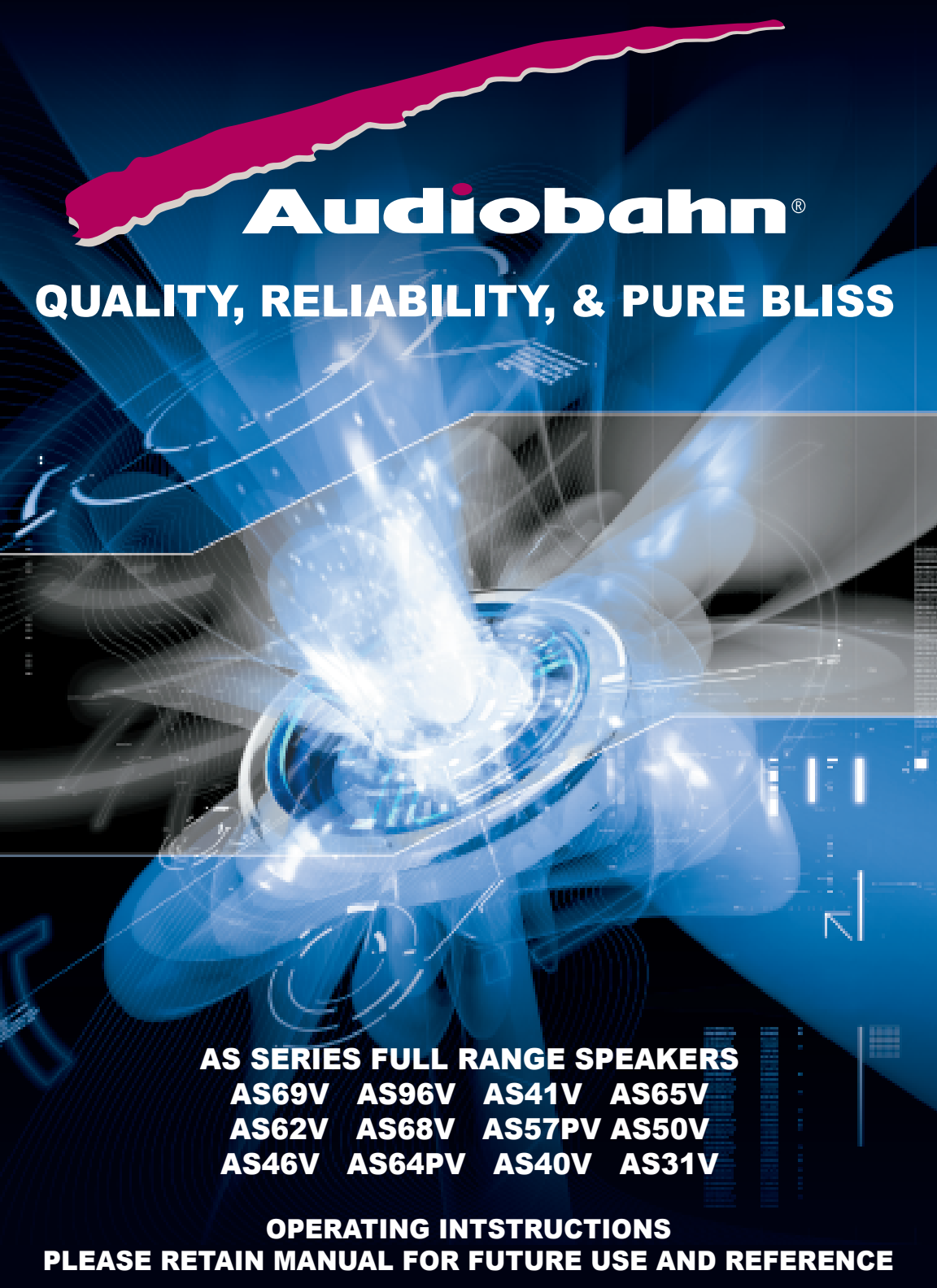


AS SERIES FULL RANGE SPEAKERS

AS69V AS96V AS41V AS65V
AS62V AS68V AS57PV AS50V
AS46V AS64PV AS40V AS31V

OPERATING INTSTRUCTIONS
PLEASE RETAIN MANUAL FOR FUTURE USE AND REFERENCE

The Audiobahn Way

To bring the product to market that excites the consumer through sound and vision from an orientation of integrity and customer service. We make you look as good as you sound. We strive to take car audio to an extreme the world has never seen, and a world that never stops evolving.

Audiobahn was established in 1997 with one long-term goal in mind, "**Build it Bigger, Badder, & Better, and the people will take notice!"** We back this statement with an engineering team that has brought home several Innovations, Design & Engineering Showcase Awards, and a marketing team from around the world that spends countless hours developing our no compromise products to satisfy the most discriminating enthusiasts.

Our global manufacturing facilities feature ISO9002 ratings (the highest level of quality control awarded in the electronics manufacturing industry), fully robotic assembly lines and a state of the art, California based R & D laboratory.

Due to overwhelming response from our competitors, and our goal to participate in even more events this year, we created *"TEAM AUDIOBAHN." This organization is designed to create a support network along with shirts and perks for team members. "TEAM AUDIOBAHN" is not only for the diehard competitor, but also for anyone that loves car audio as much as we do. With four levels of play, one is right for you to get started in the Audiobahn family.

Our Technical Department and entire staff look to strive above and beyond the rest of the pack by going that extra mile to help you out. Whether you happen to be a veteran competitor, or a beginner car audio enthusiast who does not know a voice coil from a spider. We are all her to help you get the best system you can with what you have.

Judge for yourself, and remember what it's all about, **"If it's not Bigger, Badder & Better, it's not Audiobahn."** If audio is your life, Audiobahn is the brand for you! We make you look as good as you sound. People never stop trying to get the best product, so we will never stop making it.

*To learn more about "TEAM AUDIOBAHN" please give us a call, see our website at www.audiobahn.com, or email us at team@audiobahn.com to learn about all the details.

Table of Contents

Getting Started---------- 2
Introduction---------- 3
Features and Specifications---------- 4
Mounting and Setup----------5-6
Choosing a Location---------- 7
Installation---------- 8
Wiring---------- 9
Securing the Speaker----------10
Troubleshooting----------11
Warning and Disclaimer----------12
Warranty----------13-14

Getting Started

Welcome to Audiobahn Inc.. This manual has been designed to provide information for the owner, salesperson, and installer. For those of you who want quick information on how to install this product, please turn to the installation section of this manual. Other information can be located by using the table of contents. We at Audiobahn Inc. have worked very hard to make sure that all of the information in this manual is current, but, as we are constantly finding new ways to improve our product, this information is subject to change without notice. All updated information can be found on our web page in the technical support section.

Introduction

Dear Customer,

Congratulations on your purchase of the worlds finest brand of car audio products. Here at Audiobahn Inc. we are devoted to making our musical reproduction the vert best, and we are pleased you have chosen our product. Through years of engineering expertise, hand craftsmanship, and critical testing procedures, we have created a wide range of products that reproduce music with all the clarity and richness you deserve.

For maximum performance we recommend you have your Audiobahn product installed by an Authorized Audiobahn Dealer, as we provide specialized training through our Audiobahn Installer Training Programs. Please read your warranty, keep your receipt, and original carton for possible future use.

To get a free brochure on Audiobahn products in the US call (714) 988-0400 or e-mail us at sales@audiobahn.com.

WARNING

Continuous exposure to sound pressure levels over 100dB may cause permanent hearing loss. High powered autosound systems may produce sound pressure levels well over 135dB. Need we say more! Use common sense.

If after reading this manual you still have questions regarding your product, we recommend that you see your nearest Audiobahn Dealer. A list of Authorized Audiobahn Dealers can be found on our web page. If you need further assistance, feel free to call us at (800) 488-8595 and ask for the Technical Department. Be sure to have the model number, date of purchase, and invoice number available when you call.

The model number can be located on the outside of the carton. Record this in the space provided below along with the date of purchase. It is a good idea to keep your receipt with this as you will need it in the case of needing a warranty, repair service or exchange.

Model Number:_____ Date of Purchase: _____

Features

Chrome Basket
Carbon Injection Cone
Butyl Rubber Surround
2 Layer High-Temp ASV Voice Coil
4 Ohm Impedance
Removable Tweeter
Polyswitch Tweeter Protection Circuit
Standard and Custom Grilles 4" and Up
Complete with Mounting Hardware
Optional Replacement Silk Dome Tweeter (AST20V)

Specifications

Power Handling

AS69V: 200 Watts RMS
AS96V: 180 Watts RMS
AS41V: 100 Watts RMS
AS68V: 100 Watts RMS
AS57PV: 100 Watts RMS
AS65V: 100 Watts RMS
AS62V: 90 Watts RMS
AS50V: 80 Watts RMS
AS46V: 80 Watts RMS
AS64PV: 80 Watts RMS
AS40V: 80 Watts RMS
AS31V: 60 Watts RMS

Magnet Weight

AS69V: 40 oz.
AS96V: 40 oz.
AS41V: 18 oz.
AS68V: 18 oz.
AS57PV: 15 oz.
AS65V: 18 oz.
AS62V: 18 oz.
AS50V: 15 oz.
AS46V: 15 oz.
AS64PV: 10 oz.
AS40V: 15 oz.
AS31V: 10 oz.

Frequency

AS69V: 25Hz-20kHz
AS96V: 25Hz-20kHz
AS41V: 50Hz-20kHz
AS68V: 40Hz-20kHz
AS57PV: 60Hz-20kHz
AS65V: 50Hz-20kHz
AS62V: 50Hz-20kHz
AS50V: 60Hz-20kHz
AS46V: 60Hz-20kHz
AS64PV: 90Hz-20kHz
AS40V: 90Hz-20kHz
AS31V: 150Hz-20kHz

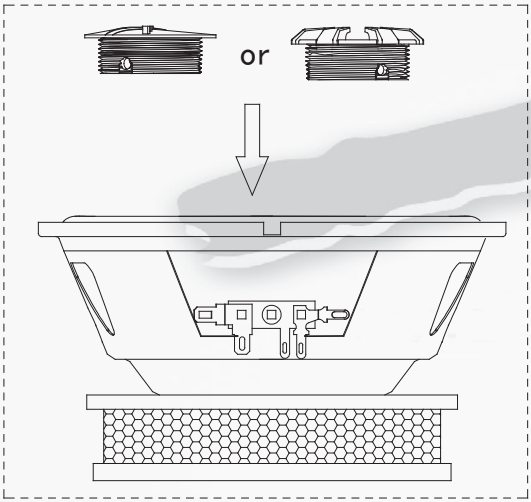
Sensitivity

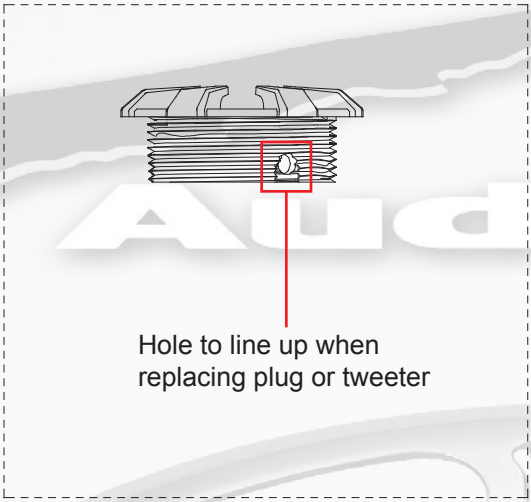
AS69V: 95 dB
AS96V: 95 dB
AS41V: 93 dB
AS68V: 93 dB
AS57PV: 93 dB
AS65V: 94 dB
AS62V: 94 dB
AS50V: 93 dB
AS46V: 93 dB
AS64PV: 91 dB
AS40V: 93 dB
AS31V: 91 dB

Speaker Size

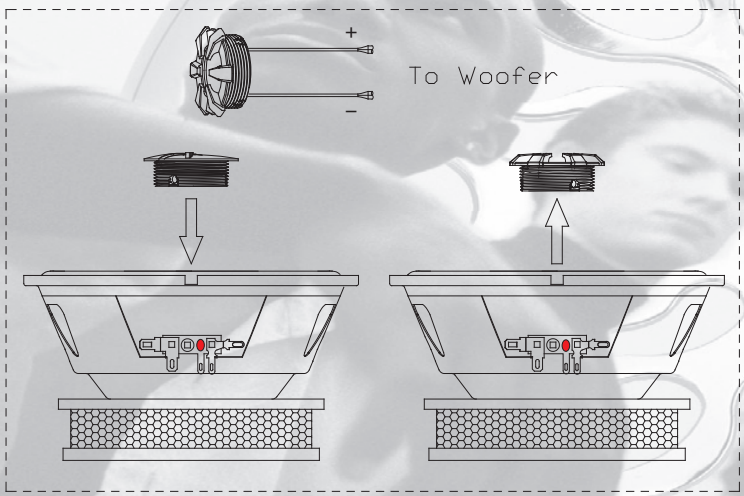
AS69V: 6x9" 3-Way
AS96V: 6x9" 2-Way
AS41V: 4x10" 2-Way
AS68V: 6x8" / 5x7" 2-Way
AS57PV: 5x7" / 6x8" 2-Way Plate
AS65V: 6.5" 3-Way
AS62V: 6.5" 2-Way
AS50V: 5.25" 2-Way
AS46V: 4x6" 2-Way
AS64PV: 4x6" 2-Way Plate
AS40V: 4" 2-Way
AS31V: 3.5" 2-Way

2-Way Tweeter Option

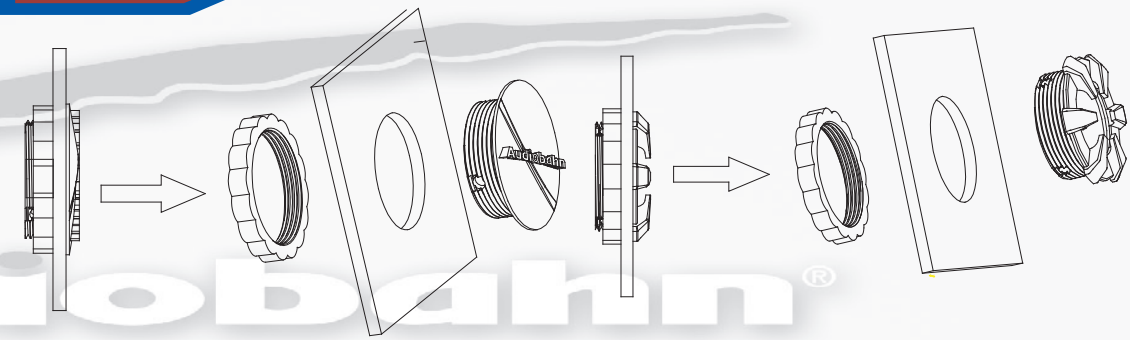




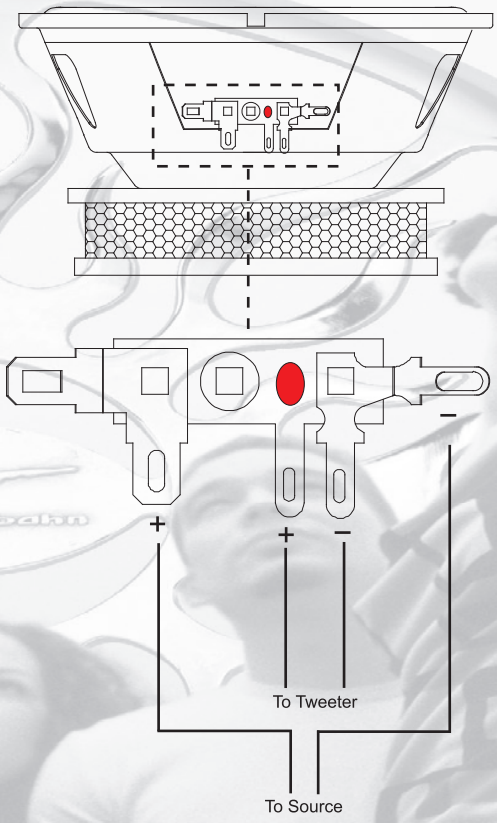
When using one of the AS series 2-way speakers, the tweeter is fully removable. When removing the tweeter, make sure to replace the chrome plug in its place. This is needed for proper operation of the speaker. To remove the plug or tweeter grip your fingers on the outside of the tweeter or plug and gently pull up with a tilting action slightly from side to side and it will pop out. To replace the plug or tweeter, line up the holes at the bottom of the plug or tweeter with the markings on the cup on the speaker.



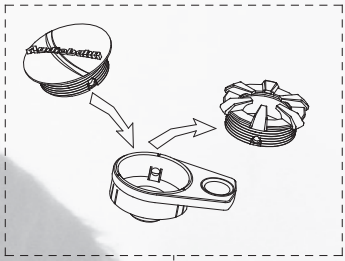
When using the tweeter installed in the speaker or mounted separately, the blue wire with the black line is - (negative) and the solid blue wire is + (positive).

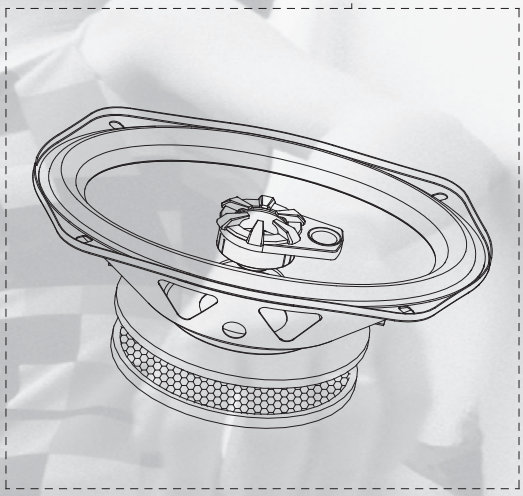


To mount the tweeter, use the tweeter as a template to mark out and cut a hole the diameter of the tweeter then, insert the tweeter then, place the supplied ring on the back of the tweeter and screw it on clockwise to tighten the tweeter into its mounted position.



3-Way Tweeter Option





Removal of the 3-Way tweeter is the same as the 2-Way setup on page 5.

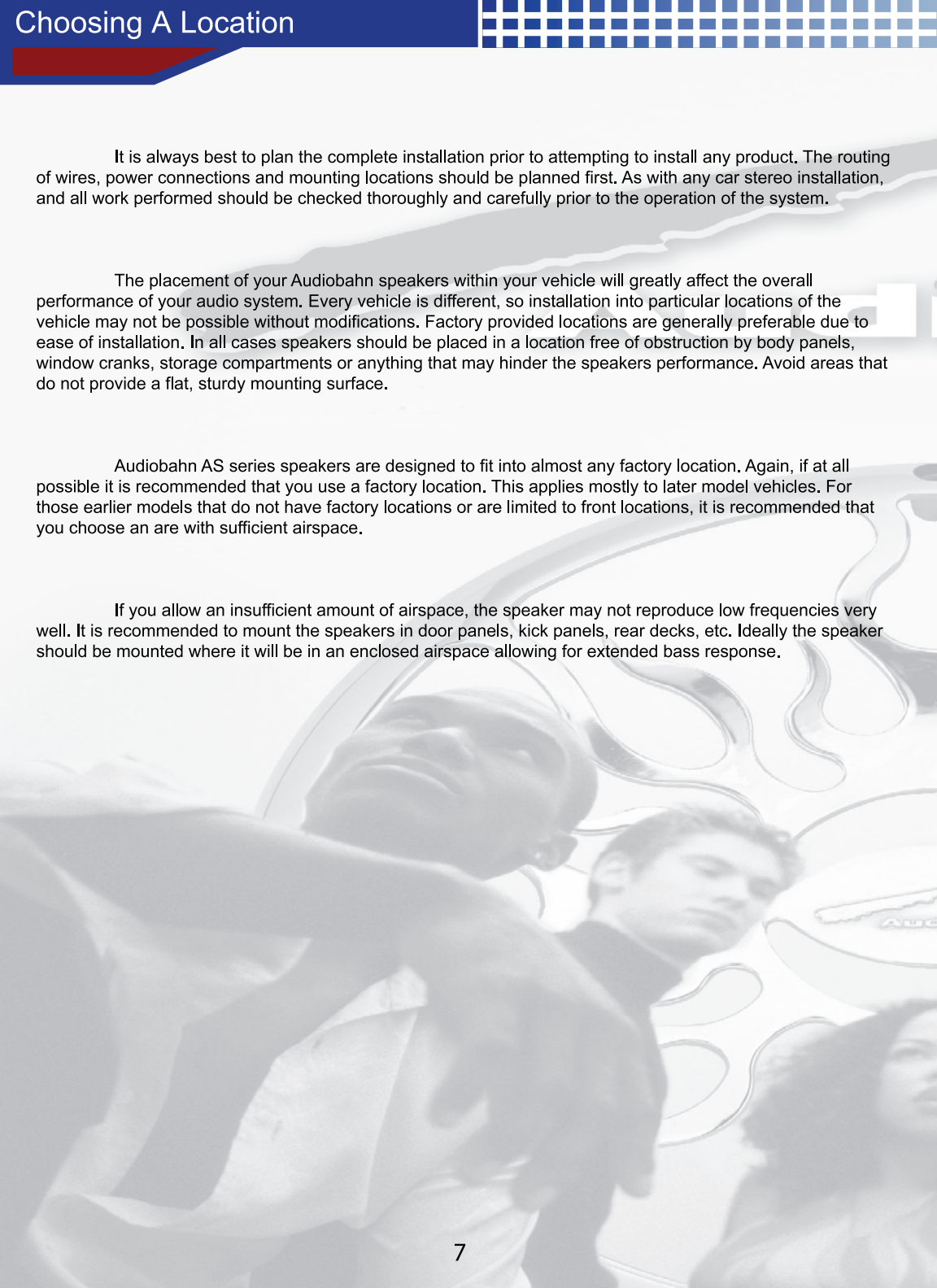
Choosing A Location

It is always best to plan the complete installation prior to attempting to install any product. The routing of wires, power connections and mounting locations should be planned first. As with any car stereo installation, and all work performed should be checked thoroughly and carefully prior to the operation of the system.

The placement of your Audiobahn speakers within your vehicle will greatly affect the overall performance of your audio system. Every vehicle is different, so installation into particular locations of the vehicle may not be possible without modifications. Factory provided locations are generally preferable due to ease of installation. In all cases speakers should be placed in a location free of obstruction by body panels, window cranks, storage compartments or anything that may hinder the speakers performance. Avoid areas that do not provide a flat, sturdy mounting surface.

Audiobahn AS series speakers are designed to fit into almost any factory location. Again, if at all possible it is recommended that you use a factory location. This applies mostly to later model vehicles. For those earlier models that do not have factory locations or are limited to front locations, it is recommended that you choose an are with sufficient airspace.

If you allow an insufficient amount of airspace, the speaker may not reproduce low frequencies very well. It is recommended to mount the speakers in door panels, kick panels, rear decks, etc. Ideally the speaker should be mounted where it will be in an enclosed airspace allowing for extended bass response.



Installation

Note: Audiobahn strongly recommends that you operate your system at low volumes prior to the completed installation of your Audiobahn speakers. This will allow a test of the speaker before securing it to its permanent location.

Caution: Make sure that all speaker wiring is fully protected from cuts, tears and possible wear. All short circuits developing as a result could severely damage the source unit or possibly the amplifier as well as the speakers themselves. Makes sure all speaker wires are placed easily within reach of the speaker terminal with no stress on the wire or connectors.

Mounting

1) Confirm the mounting location and depth requirements by inspecting the area where the speaker will be mounted. Most speakers will fit into stock locations on the vehicle. In this case only depth consideration is important.

2) If the location you have picked does require cutting, you may use the supplied template to help you locate and mark the mounting location and cuts to be made. Be careful when cutting out the template. If you cut the template properly, the speaker will be a perfect fit.

3) If there is a cosmetic panel where the speaker will be mounted, we recommend using a utility knife to carefully cut a hole in it. Confirm the cut by placing the speaker in the hole. You may need to modify the hole cut as necessary.

4) If it is necessary to cut steel, reinstall the cosmetic panel in place and use the hole you have previously cut as a template. This will help to insure proper cutting and a good fit. Mark the locations for the speaker mounting screws. Then remove the panel and drill the screw holes. When finished you can replace the panel.

5) After cutting and drilling all holes, inspect the mounting areas for any metal burrs or rough edges. File any area that may interfere with the mounting of the speaker.

6) Clean any metal shavings from the mounting area and check for areas in which water may enter the speaker cavity. Treat the area for water protection when necessary.

Make sure your source unit (Cassette, CD, DAT, DVD etc.) is turned off while connecting the speaker terminals. Turn on the various components and slowly advance the volume. Remember to check and recheck all connections to insure you have a secure fitting.

Wiring

Audiobahn recommends using at least 18-gauge wire with your new speaker system. Thinner gauge wire may easily be severed and can cause damage to your system should any bare wires come in contact with the vehicles chassis.

Makes sure that your audio system is off while installing and connecting your new Audiobahn speakers. Failure to do so could result in damaging the speaker beyond repair. This is not something that would be covered under the manufacturer warranty.

Be sure to route the wires to the speakers with the insulated terminal ending at the speaker. This will insure a good contact with the speaker. If you need to shorten the speaker lead, do so on the opposite end of the insulated terminals or the bare end.

Be sure the polarity is correct at all times. The speaker leads are color coded for negative and positive. Make sure that the leads connected to the positive terminal of your amplifier or source unit is correctly connected to the positive terminal of the speaker.

To insure long-term reliability all bare wires and wire-to-wire connections should be soldered and insulated with heat shrink or electricians tape. Under no circumstances should you leave any bare wires uncovered, as this can and will lead to the failure of your speakers and possibly other components.

When mounting in a door it is imperative to have the right amount of slack in the connecting wire as to not get crimped or torn when the door is opened or closed. Avoid areas of the door jam that pinch. This will cause damage to the speaker and other components over long-term use.

Once the speaker wiring is complete, you can connect the opposite end to the amplifier or source unit. Again, be sure to observe correct polarity. Solder and wrap all stripped connections.

Securing the Speaker

Once you have tested your system and confirmed that it is operating properly, turn off your system and prepare for the final mounting of the speakers.

1) Position the speaker into the mounting hole and confirm the correct mounting location and hole placement. Screw clips are provided to insure a snug fit. Place crew clips over the metal surface and line up the hole with the hole you have previously drilled. Place the speaker into the hole. Align the mounting holes and proceed to insert the screws. Be sure to tighten the screws evenly as not to warp the speaker frame.

2) Turn your system back on to confirm the speakers proper operation. First test at low volume and then you may steadily increase the volume as desired

3) The next steps will aid in the proper mounting of the speaker grills. Follow these steps carefully and be patient. First, locate the special bonding rubber which is located between the wax paper in the hardware package.

4) Carefully inspect the mounting ring where the grill will be inserted. You will notice 4 to 6 channeled areas. This is the area where the bonding rubber will secure the grill to the speaker.

5) Break off pieces of the bonding rubber that correspond to the size of the channels and insert it snugly in place. Once all of the channels have been filled, carefully insert the grill and press firmly into place.

Warning

It is extremely important that the mounting ring is correctly installed around the speaker. You may notice differences in the inner shape of the grill. These cutouts are so the bridges holding the tweeters and or mids do not touch. You should be able to see the bridge unobstructed when the ring is mounted.

In the event that your Audiobahn speakers appear to require service we ask that you first do a little trouble shooting to determine if the problem is actually the speaker, or a problem located in a different part of the vehicle such as the amplifier, wiring, fusing or possibly the source unit.

If your Audiobahn speakers have been installed professionally by an authorized Audiobahn Dealer, we recommend that you return to the dealer and demonstrate the problem to a qualified installer or repair technician. If you installed the speaker yourself, use the following guidelines to help find the problem.

1) No Sound

*Check the source or amplifier for power and be sure they are operating properly
*Check all signal connections
*Check for any wiring that may be shorting together or touching the metal chassis
*Check all ground connections

2) Distorted Sound at All Volumes

*Check for bad speaker connections
*Check wiring for correct polarity

3) Distorted Sound at High Volumes Only

*Check for loose mounting of the speaker
*Inspect the speaker for debris in the cone or other obstructions
*Check the woofer cone for any damage or defects

4) Poor Bass Response

*Check wiring for correct polarity
*Check for unstable or loose mounting surface
*Check bass & treble controls as the source unit or amplifier

5) Poor High Frequency Response

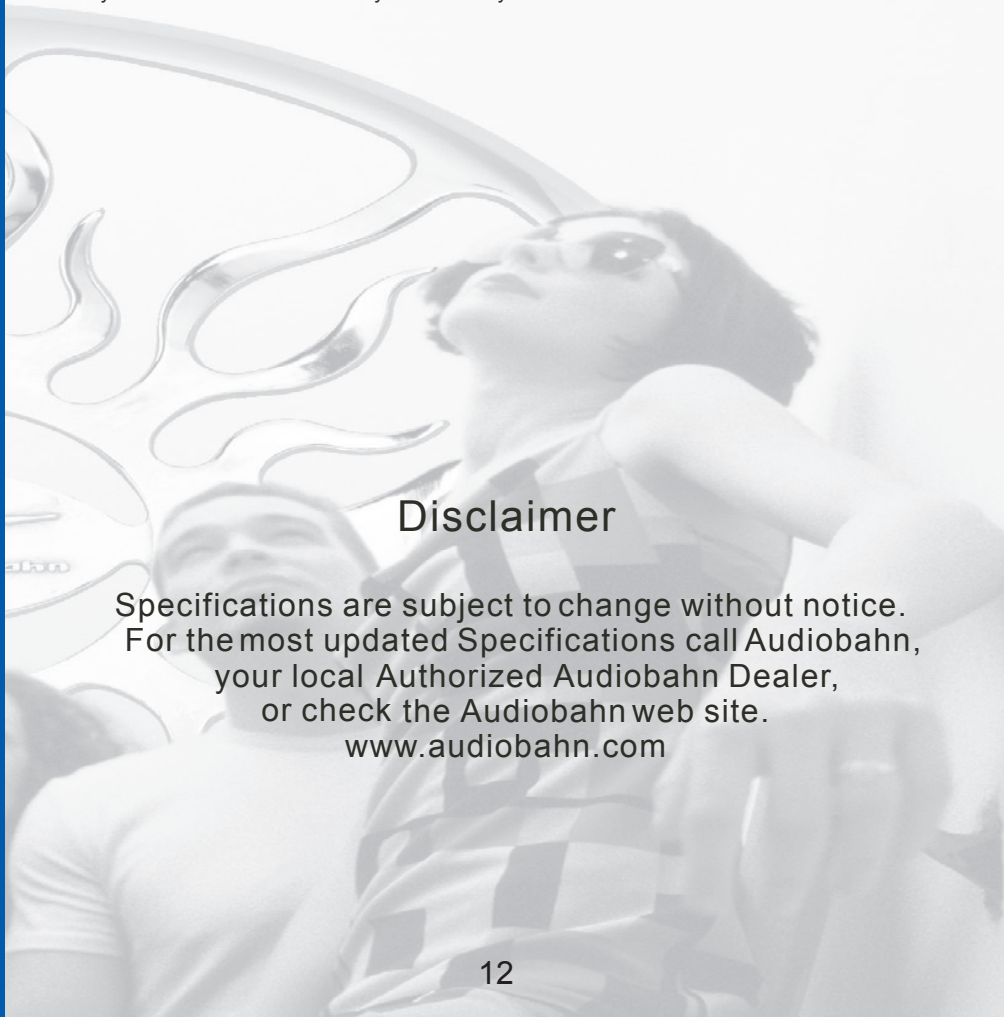
*Check wiring for correct polarity

Technical Support (800) 488-8595 / tech@audiobahn.com

WARNING

Investigate the layout of your automobile thoroughly before drilling or cutting any holes. Take care when you work near gas tanks, gas lines, hydraulic lines, and electrical wiring. Do not use the power amplifier unmounted. Attach the system securely to the automobile to prevent damage, particularly in the event of an accident. Do not mount the system so that the wire connections are unprotected or are subject to pinching or damage from nearby objects.

The +12V DC power wire must be fused at the battery positive terminal connection. Before making or breaking power connections at the system power terminals, disconnect the +12V wire at the battery end. Confirm your radio/head unit and/or other equiptment is turned off while connecting the input jacks and speaker terminals. If you need to replace the power fuse, replace it only with a fuse identical to that supplied with the system. Using a fuse of a different type or rating may result in damage to this system which is not covered by the warranty.



Disclaimer

Specifications are subject to change without notice.
For the most updated Specifications call Audiobahn,
your local Authorized Audiobahn Dealer,
or check the Audiobahn web site.
www.audiobahn.com

Technical Support (800) 488-8595 / tech@audiobahn.com

Audiobahn Consumer Product Warranty Policy

Audiobahn products are manufactured with the highest quality components and some of the most advanced technology available. Because of this, we recommend that you have your new products installed by an **Authorized Audiobahn Dealer**. **(A list of Authorized Audiobahn Dealers can be found on our web page).**

Warranty Period: One year from the original date of purchase.

Warranty Coverage: This warranty covers manufacturer defects only. The warranty is applicable to the original purchaser, and is non-transferable. You must provide a receipt from an **Authorized Audiobahn Dealer** that shows the location of purchase, price paid, and date of purchase.

(Products purchased by consumers from an **Authorized Audiobahn Dealer** outside the United States are covered only by the Distributor of that specific country and are not covered by **Audiobahn**).

Notes:
Complete subwoofer enclosures (**Audiobahn** will replace defective subwoofers, plexiglass, or neon only. Do not send the entire enclosure, unless the enclosure is defective itself. You must receive prior authorization and an RA# before sending in any complete enclosure).

AUDIOBAHN DOES NOT WARRANTY ANY PRODUCTS NOT PURCHASED THROUGH AN AUTHORIZED DEALER.
(A list of Authorized Audiobahn Dealers can be found on our web page).

AUDIOBAHN WARRANTIES DO NOT COVER THE FOLLOWING:

- Any product not purchased from an **Authorized Audiobahn Dealer** (including Internet dealers)
- Damage caused by abuse, misuse, accident, water / flood, or theft (including any cosmetic damage to the body of the product)
- Damage caused by improper installation
- Any cost or expense related to removal or reinstallation
- Any unauthorized services
- Any product that has the serial number removed, altered, or defaced
- Subsequent damage to any other components
- Pinched, cut, or stripped wires / terminals
- Any product that is new, and/or found to be in working condition
- L.E.D. indicators on electronics (**Audiobahn** will only replace L.E.D.(s) found to be defective at the time of purchase)

How to receive warranty service: Contact your local **Authorized Audiobahn Dealer**, or call **Audiobahn** at **(800) 488-8595** between the hours of 9:00 AM and 5:00 PM PST.

If you are having problems with your system, we recommend you check the product carefully and thoroughly to confirm that the product truly has a manufacturer defect; as opposed to abuse, or other components in the system causing the failure. This might include having an **Authorized Audiobahn Dealer** look at the product to confirm the source of the problem. Any product found to have a manufacturer defect will be replaced with a new piece of the same or similar model, or repaired at the discretion of **Audiobahn**. Any product found to have no manufacturer defect will be returned to the sender at their cost.

You must acquire a Return Authorization Number (#) prior to returning ANY product to Audiobahn. That Return Authorization Number (RA#) must be prominently and clearly marked on the outside of the shipping carton, or product delivery will be refused (no exceptions will be made).

Please note: All shipping and handling (to and from) charges will be the sole responsibility of the consumer.

Please record and keep your Return Authorization Number (RA#) in the event that further communication is required.

Return Authorization Number (RA#): _____

Date product was sent: _____

Contact Information

Audiobahn Headquarters
114 South Berry St.
Brea, CA 92821
Phone (800)488-8595 Fax. (714)988-0433
Pacific Coast Time : 9am-5pm Mon. - Fri.
tech@audiobahn.com